



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re U.S. Patent Application of:
T. Hatazawa *et. al.*

Serial No.: 09/446,641

Filed: December 22, 1999

For: SOLID-ELECTROLYTE
SECONDARY BATTERY

Atty. Docket: 9793822-0111

Examiner: T. Dove

Group Art Unit: 1745

#17/10
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RESPONSE "D" TO NON-FINAL OFFICE ACTION Dated 05 Sept. 2002

Dear Sir:

In response the non final office action (after filing a RCE) dated 05 Sept. 2002, the applicants respond as follows:

In the Claims

10. (Thrice amended) A solid-electrolyte secondary battery comprising:
- (a) a positive electrode;
 - (b) a negative electrode;
 - (c) a solid electrolyte comprising a matrix polymer comprising a fluorocarbon polymer having a weight-average molecular weight of greater than 600,000;
 - (d) wherein the matrix polymer further comprises a second fluorocarbon polymer having a weight-average molecular weight of greater than 300,000 and less than 550,000;
 - (e) wherein the matrix polymer comprises 30 percent or more by weight of the fluorocarbon polymer having a weight-average molecular weight of greater than 600,000;
 - (f) wherein the positive electrode has a face which is directed towards the negative electrode and the solid-electrolyte layer is formed on the face of the positive electrode and impregnates into the solution in which the solid electrolyte is dissolved; and
 - (g) wherein the negative electrode has a face directed toward the positive electrode and the solid-electrolyte layer is formed on the face and impregnates into the face a solution in which the solid electrolyte is dissolved.

11. Canceled.

12. Canceled.

13. The solid-electrolyte secondary battery of claim 10, wherein the fluorocarbon polymer is polyvinylidene fluoride or polyvinylidene fluoride/hexafluoropropylene copolymer.

14. The solid-electrolyte secondary battery of Claim 10 wherein at least one of the positive and negative electrodes comprises a binder comprising the matrix polymer of the solid electrolyte.

15. The solid-electrolyte secondary battery of Claim 10 wherein the negative electrode comprises a material which is capable of intercalating or deintercalating a lithium ion.

16. The solid-electrolyte secondary battery of Claim 15 wherein the material which is capable of intercalating or deintercalating a lithium ion comprises a carbon material.

17. The solid-electrolyte secondary battery of Claim 10, wherein the positive electrode comprises a composite oxide of lithium and a transition metal.

18. Canceled.

19. Canceled.